

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the present application.

1. (presently amended) A method of modifying cell structure comprising:

introducing into a mammalian cell either biliverdin reductase or a fragment or variant thereof, or a nucleic acid molecule encoding biliverdin reductase or a fragment or variant thereof under conditions effective to express biliverdin reductase or the fragment or variant thereof, thereby increasing the intracellular concentration of biliverdin reductase, or a the fragment or variant thereof, in a mammalian cell under conditions effective to modify and modifying the structure of the mammalian cell,

wherein the modified cell structure is enhanced cell size, actin microspike formation, polar cell morphology, or a combination thereof.

2. (canceled)

3. (presently amended) The method according claim 1 wherein ~~said increasing comprises:~~

introducing biliverdin reductase is introduced into the mammalian cell.

4-7 (canceled)

8. (presently amended) The method according to claim 1 wherein ~~said increasing comprises:~~

transforming the mammalian cell with a nucleic acid molecule encoding biliverdin reductase is introduced into under conditions effective for expression of the biliverdin reductase in the mammalian cell.

9. (presently amended) The method according to claim 8 wherein said introducing transforming comprises:

transfected the mammalian cell with an infective transformation vector comprising the nucleic acid encoding biliverdin reductase.

10. (original) The method according to claim 9 wherein the infective transformation vector is an adenovirus vector or a retrovirus vector.

11 (original) The method according to claim 1 wherein the mammalian cell is a stem cell, a neuronal or glial cell, a vascular smooth muscle cell, a skeletal muscle cell, an epithelial cell, or a nucleated blood cell.

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12. (original) The method according to claim 1 wherein the mammalian cell is *in vitro*.

13-26 (canceled)
